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10/780,497	02/17/2004	David Felts	BEAS-01383US1	1555

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EXAMINER	
ZHANG, SHIRLEY X	

ART UNIT	PAPER NUMBER
4121	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/780,497	FELTS ET AL.	
	Examiner	Art Unit	
	Shirley X. Zhang	4121	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *17 February 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This non-final office action is responsive to the U.S. patent application No. 10/780,497 filed on 02/17/2004.

Priority Claims

Acknowledgement is made of a claim for priority under 35 U.S.C. 119(e) to the U.S. provisional application No. 60/450,126 filed on 02/25/2003.

Specification

1. The abstract of the disclosure is objected to because the word "**An**" recited in the first sentence of the abstract appears to be a typographical error of "**an**". Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informality:

The term "so **to** does the need for" recited in the first sentence of the "Background" section appears to be a typographical error of "so **too** does the need for".

Appropriate correction is required.

3. Claim 20 is objected to because of the following informality: there is an error in the numbering of the set of configuration parameters recited in claim 20 – two of the parameters are denoted with the number 3. Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. **Claims 1-10 and 25** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 1 recites an interactive tool for configuring a domain, which appears to direct to a computer program per se., lacking storage on a medium that enables any underlying functionality to occur. Neither does the claim appear to include a judicial exception.

Claims 2-10 are dependent on claim 1, and further describe the computer program as constituting data structures and collections of data that do not have any practical application. Therefore, claims 2-10 inherit the 35 U.S.C. 101 issue of the independent claim.

Claim 25 recites a computer data signal embodied in a transmission medium comprising code segments, which appears to direct to a signal per se. that is not in one of the statutory categories of patentable subject matter. Neither does the claim appear to include a judicial exception.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1, 5, 6, 10, 11, 13, 18, 20 and 25** are rejected under 35 U.S.C. 102(e) as anticipated by Patterson (U.S. Patent No. 7,093,005 B2).

Regarding claim 1, Patterson teaches an interactive tool for configuring a domain (column 2, line 67 discloses an instant data center or a virtual server farm that is equivalent to a domain), comprising:

providing a first user interface operable to configure the domain (Fig. 2A-2C discloses the hierarchy of Web pages that can be accessed by network administrator to design, create and manage virtual server farms; Fig. 3A further discloses one embodiment of the graphic user interface for configuring a virtual server farm);

providing a second user interface operable to configure a cluster (Fig. 4A discloses a user interface for configuring a server tier, which is a cluster of servers);

wherein configuration of the domain is based on a domain template (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA") for creating any number of other IDCs that have the same logical structure, i.e., a data center DNA is a domain template); and

wherein the cluster belongs to the domain (column 10, lines 19-33 disclose that a data center may be structured to include a Web server tier, a database server tier, and an application server tier, where a server tier is a cluster of servers that belongs to a data center).

Regarding claim 5, Patterson discloses the interactive tool of claim 1 wherein the domain template includes a set of configuration parameters (column 19, lines 50-62 disclose that the graphical design of a data center, i.e., the domain template, comprises a set of graphical icons representing various servers, fire walls, and other network

elements, and the interconnection of the graphical icons, each of which is associated with a set of parameters).

Regarding claim 10, Patterson teaches the interactive tool of claim 1 wherein the cluster includes a set of servers that work together to provide scalability and high availability for an application (column 10, lines 1-33 disclose that one basic building block of a data center is a load balancing function that may be realized using a tier of Web servers, application servers and database servers, which inherently work together to provide scalability and high availability).

Regarding claim 11, Patterson teaches a method for configuring a domain (column 2, line 67 disclose an instant data center or a virtual server farm that is equivalent to a domain) with an interactive tool (Fig. 3A discloses a screen shot of the interactive configuration tool), comprising:

selecting a domain template with the interactive tool (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA"));

configuring the domain based on the domain template (column 14, lines 40-41 disclose that the Visual Editor enables a user to select a design of an instant data center from one of a plurality of templates);

wherein the domain template can be customized (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA") for creating any number of other IDCs that have the same logical structure; column 14, lines 42-50 further disclose that the user can change the configurations in a data center; therefore it is inherent that a data center DNA can be customized); and

wherein the domain template includes a set of configuration parameters (column 19, line 49, section 3.1 "Functional Overview" disclose that the graphical representation of a data center, i.e., the domain template, comprises a set of graphical icons representing various servers, fire walls, and other network elements, and the interconnection of the graphical icons, each of which is inherently associated with a set of parameters).

Regarding claim 18, Patterson teaches a machine-readable medium having instructions stored thereon that when executed by a processor cause a system to allow a user to:

select a domain template with an interactive tool (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA"));

configure a domain based on the domain template (column 14, lines 40-41 disclose that the Visual Editor enables a user to select a design of an instant data center from one of a plurality of templates);

wherein the domain template can be customized (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA") for creating any number of other IDCs that have the same logical structure; column 14, lines 42-50 further disclose that the user can change the configurations in a data center; therefore it is inherent that a data center DNA can be customized); and

wherein the domain template includes a set of configuration parameters (column 19, line 49, section 3.1 "Functional Overview" disclose that the graphical representation of a data center, i.e., the domain template, comprises a set of graphical icons representing

various servers, fire walls, and other network elements, and the interconnection of the graphical icons, each of which is inherently associated with a set of parameters).

Regarding claims 6, 13, and 20, Patterson discloses the interactive tool of claim 5, the method of claim 11, and the machine-readable medium of claim 18, respectively, wherein the set of configuration parameters includes at least one of

1) an application (column 9, lines 55-67 disclose that a data center DNA can specify the role and associated applications of a server);

2) a server (column 9, lines 55-67 disclose that a data center can be defined in terms of a number of basic building blocks such as web servers and database servers, therefore the configuration parameters include a server);

3) information related to configuring a database (column 10, lines 21-24 disclose a two-tier configuration including a Web server tier and a database server tier. The configuration parameters of the database server tier inherently include information related to configuring a database);

4) information related to configuring a message service; and

5) information related to configuring a cluster (column 10, lines 21-24 disclose a two-tier configuration including a Web server tier and a database server tier; therefore the configuration parameters of a server tier is the information related to configuring a cluster).

Regarding claim 25, Patterson teaches a computer data signal embodied in a transmission medium, comprising:

a code segment including instructions to select a domain template with an interactive tool (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA"));

a code segment including instructions to configure a domain based on the domain template (column 14, lines 40-41 disclose that the Visual Editor enables a user to select a design of an instant data center from one of a plurality of templates);

wherein the domain template can be customized (column 9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA") for creating any number of other IDCs that have the same logical structure; column 14, lines 42-50 further disclose that the user can change the configurations in a data center; therefore it is inherent that a data center DNA can be customized); and

wherein the domain template includes a set of configuration parameters (column 19, line 49, section 3.1 "Functional Overview" disclose that the graphical representation of a data center, i.e., the domain template, comprises a set of graphical icons representing various servers, fire walls, and other network elements, and the interconnection of the graphical icons, each of which is inherently associated with a set of parameters).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. **Claims 2, 3, 4, 9, 12, 16, 17, 19, 23 and 24** are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Patterson as applied to claims 1, 11 and 18 above.

Regarding claim 2, Patterson teaches the interactive tool of claim 1. Patterson further teaches that the tool includes an option to select the domain template (column 14, lines 39-41 disclose that the Visual Editor enables the user to select a design from one of a plurality of templates, or data center DNAs; column 19, line 47, section 3.0 "Graphical Editor" discloses more details about the Visual/Graphical Editor).

Patterson does not specifically disclose that the option to select domain template is included in **the first user interface**.

However, it would have been obvious to one of ordinary skill to modify Patterson as such that the first user interface includes the option to select the domain template. One would have been motivated to make such modification because Patterson and the invention is functionally the same. The difference between them is in the organization of user interfaces, which is merely a matter of design choice.

Regarding claim 3, Patterson teaches the interactive tool of claim 1. Patterson further teaches that the tool includes an option to customize the domain template (column

9, lines 47-50 disclose that the logical structure of an instant data center can be saved and used as a blueprint ("DNA") for creating any number of other IDCs that have the same logical structure; column 14, lines 42-50 further disclose that the user can change the configurations in a data center; therefore it is inherent that a data center DNA can be customized).

Patterson does not specifically disclose that the option to customize the domain template is included in **the first user interface of the tool**.

However, it would have been obvious to one of ordinary skill to modify Patterson as such that the first user interface includes the option to customize the domain template. One would have been motivated to make such modification because Patterson and the invention is functionally the same. The difference between them is in the organization of user interfaces, which is merely a matter of design choice.

Regarding claims 4 and 12 and 19, Patterson teaches the interactive tool of claim 1, the method of claim 11, and the machine-readable medium of claim 18, respectively.

Patterson further teaches an administration server (Fig. 1D and column 9, lines 36-39 disclose an administration server comprising one or more farm managers where a farm manager manages one or more virtual server farms) and a set of resources and/or services that can be managed as a unit (throughout Patterson, and especially in column 1, lines 30-31, it is disclosed that a data center/virtual server farm includes network resources and/or services such as a plurality of servers, one or more load balancers, firewalls and other network elements that together are managed as a unit).

Patterson does not specifically teach that a domain includes an administration server.

However, based on Patterson's disclosure on farm manager and the farm manager's relationship with a virtual server farm, it would have been obvious for one of ordinary skill in the art at the time of the invention to logically define a domain that includes a farm manager of Patterson's and the corresponding virtual server farm, where the farm manager is equivalent to the administration server recited in the invention. One would have been motivated to modify as such to have a clear logical partition of network elements to simplified the network management.

Regarding claims 9, 16 and 23, Patterson teaches the interactive tool of claim 1, the method of claim 11, and the machine-readable medium of claim 18, respectively.

Patterson further teaches in Fig. 2A-2C and column 11, section 2.0 "Customer Control Center" that the interactive tool includes

an option to add, change and/or delete a managed server (Fig. 3A);

an option to add, change and/or delete the cluster (Fig. 3A, Fig. 4A and column 27, lines 40-48 disclose that the interactive tool includes an option to add, change and/or delete the cluster); and

an option to designate a server as part of the cluster (Fig. 4A and column 27, lines 49-50 disclose that the name of the servers in a tier, i.e., a cluster, is linked to the name if the tier).

Patterson does not teach that all the options above are realized by the second user interface. Instead, these options are distributed among several Web pages of a graphical editor (Patterson, column 19, section 3.0 "Graphical Editor").

However, it would have been obvious to one of ordinary skill to modify Patterson as such that all the options recited in the claim are included in the second user interface, because Patterson had taught about the all the configurable options in its disclosure, and the presentation of information relating to such options in a graphical or command-line user interface is a matter of design choice that does not affect the result of the invention.

Regarding claims 17 and 24, Patterson teaches the method of claim 16 and the machine-readable medium of claim 23 above, respectively.

Patterson further teaches that a cluster includes a set of servers that work together to provide scalability and high availability for an application (column 10, lines 1-33 disclose that one basic building block of a data center is a load balancing function that may be realized using a cluster of Web servers, application servers and database servers that inherently work together to provide scalability and high availability).

7. **Claims 7, 14 and 21** are rejected under 35 U.S.C. 103(a) as obvious over Patterson as applied to claims 1, 11 and 18 above, respectively, and further in view of Sommerer ("The Java Archive (JAR) File Format", by Alan Sommerer in 1998).

Regarding claims 7, 14 and 21, Patterson teaches the interactive tool of claim 1, the method of claim 11 and the machine-readable medium of claim 18, respectively.

Patterson does not teach but Sommerer teaches that Java Archive (JAR) is a file format based on the popular ZIP file format and is used for aggregating many files into one.

Therefore, it would have been obvious for one of ordinary skill in the art to bundle files and resources contained in a domain template into a JAR file. One would have been motivated to do so for the ease of multiple file transport over the network.

8. **Claims 8, 15 and 22** are rejected under 35 U.S.C. 103(a) as obvious over Patterson as applied to claims 1, 11 and 18 above respectively, and further in view of Aziz et al.(U.S. Patent No. 6,597,956, hereinafter "Aziz").

Regarding claim 8, Patterson teaches the interactive tool of claim 1. Patterson does not teach that a third user interface is used to designate and/or configure an administration server.

However, Patterson discloses in Fig. 1D and column 9, lines 36-39 that an administration server comprises one or more farm managers wherein a farm manager manages one or more virtual server farms. Therefore, Patterson's farm manager is equivalent to the administration server recited in the claim.

Aziz further discloses that farm managers are allocated by and assigned to one or more virtual farms by the master segment manager to establish, configure and maintain virtual server farms (column 14, lines 46-49). Therefore, it is inherent in Aziz that there exists a user interface for designating and/or configuring the farm manager.

It would have been obvious for one of ordinary skill in the art to combine Patterson and Aziz so that the interactive configuration tool comprises a third user interface that is used to designate and/or configure an administration server. One would have been motivated to combine as such because the user interface gives a system administrator more control over the allocation and management of resources in the control plane.

Regarding claims 15 and 22, Patterson teaches the method of claim 11, and the machine-readable medium of claim 18, respectively.

Patterson does not explicitly disclose that the interactive tool includes an option to designate and/or configure an administration server.

However, Patterson discloses in Fig. 1D and column 9, lines 36-39 that an administration server comprises one or more farm managers wherein a farm manager manages one or more virtual server farms. Therefore, Patterson's farm manager is equivalent to the administration server recited in the claim.

Aziz further discloses that farm managers are allocated by and assigned to one or more virtual farms by the master segment manager to establish, configure and maintain virtual server farms (column 14, lines 46-49). Therefore, it is inherent in Aziz that there exists a user interface for designating and/or configuring the farm manager.

It would have been obvious for one of ordinary skill in the art to combine Patterson and Aziz so that the interactive configuration tool comprises an option to designate and/or configure an administration server. One would have been motivated to combine as such because such\an option gives a system administrator more control over the allocation and management of resources in the control plane.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 6,779,016 B1, "Extensible Computing System";

U.S. Patent No. 6,845,503, B1, "System and Method For Enabling Atomic Class Loading In An Application Server Environment";

U.S. Patent No. 7,043,539 B1, "generating A Description of A Configuration For a Virtual Network System";

U.S. Patent No. 7,072,822 B2, "Deploying Multiple Enterprise Planning Models Across Clusters of Application Servers";

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shirley X. Zhang whose telephone number is (571) 270-5012. The examiner can normally be reached on Monday through Friday 7:30am - 5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Taghi Arani can be reached on (571) 272-3787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAGHI ARANI
PRIMARY EXAMINER
10/24/07